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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/923,092 | 08/06/2001 | Erik Lindgren | AN06164US/0152 | 9443 |

7590 03/21/2002

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EXAMINER

CHIN, PETER

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1731

DATE MAILED: 03/21/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,092

Applicant(s)

LINDGREN ET AL.

Examiner

Peter Chin

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. Claims 1,2,7,13,14,19-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ueda (Japanese Laid-Open Patent 1992-363301) and Blixt et al (4,964,915).

Ueda discloses sizing paper with the claimed sizing composition except that Ueda is silent as to amylopectin content of the potato and corn starch that is used by example. These starches are inherently well known in the art to be below 95% amylopectin content; if evidence is required Blixt et al discloses the nominal amylopectin content of these starches in columns 4 and 5. Thus, Ueda anticipates the claimed invention or at the least obviously shows the claimed invention. Note Ueda discloses the addition of surfactants such as lignosulfonates on page 11.

2. Claims 3,4-6,15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (Japanese Laid Open Patent 1992-363301) and Blixt et al (4,964,915) in view of Savina (3,223,544).

It would have been obvious to employ the claimed condensed sulfonates since they are conventional alternatives to the lignosulfonate dispersant used in making cellulose reactive size and cationic starch sizing compositions. as evidenced by Savina. Note in any case that Blixt et al also discloses polynaphthalene sulfonates which are well known to be condensation product using formaldehyde as reactant.

3. Claims 8,9-12, and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (Japanese Laid Open Patent 1992-363301) and Blixt et al

Art Unit: 1731

(4,964,915) as applied to claims 1,27,13,14,19-21 above, and further in view of Persson et al (WO 9955964).

Persson et al relates to improved retention using a cationic starch of the type disclosed by Ueda and claimed in the present application, see page 4. It is used in conjunction with conventional fillers and sizing agents such as ketene dimers and acid anhydrides the same used in Ueda, page 10. The starches are especially suited for high conductivity stocks, i.e., those at or above 0.75 mS/cm, especially at least 3.5 mS/cm, page 9.

4. Note that there are only 26 originally filed claims in the application. There was an error in numbering as number "19" was skipped, i.e., claim 18 was immediately followed by claim 20.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Chin whose telephone number is (703) 308-2046. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (703) 308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.



PETER CHIN
PRIMARY EXAMINER